

**IN THE CLAIMS:**

Claims 1-20 (Cancelled)

Claims 21-24 (Withdrawn)

Claim 25 (Previously Presented) The illumination arrangement according to claim 40, wherein the illumination is carried out via at least one light guide.

Claim 26 (Previously Presented) The illumination arrangement according to claim 25, wherein the light guide is a flexible glass light guide and/or plastic light guide and/or fluid light guide.

Claim 27 (Cancelled)

Claim 28. (Previously Presented) The illumination arrangement according to claim 25, wherein the illumination is carried out via the light guide ends.

Claim 29. (Previously Presented) The illumination arrangement according to claim 25, wherein the illumination is carried out via illumination optics arranged following the light guide end.

Claim 30. (Previously Presented) The illumination arrangement according to claim 29, wherein the illumination optics are arranged so as to be adjustable and/or displaceable and/or swivelable with respect to the image scale as zoom system.

Claim 31. (Previously Presented) The illumination arrangement according to claim 29, wherein a hand-actuated and/or motor-operated control is provided for adjusting the illumination optics.

Claim 32. (Previously Presented) The illumination arrangement according to claim 29, wherein, when the illumination optics are adjusted as a zoom system, the adjustment being coupled to the adjustment of the microscope zoom system.

Claims 33-35 (Withdrawn)

Claim 36. (Previously Presented) The illumination arrangement according to claim 25, wherein the light guide is connected with a cold-light source arranged outside of the microscope.

Claims 37 – 39 (Withdrawn)

Claim 40. (Currently Amended) An illumination arrangement for a stereo microscope, in particular, a Greenough type comprising:

a at least one illumination channel arranged in a plane essentially orthogonal to a plane of the two observation channels, wherein the illumination is effected at an angle to the optical axis of the microscope by means of at least one light in which the illumination channel is substantially outside the viewing angle so that no direct reflection of illumination light falls into the observation channels and a fluorescence excitation is effected through the light conductor.

Claim 41 (Previously Presented) The illumination arrangement according to claim 29, wherein the illumination optics are arranged as to be displaceable with respect to the image scale as zoom system.

Claim 42 (Previously Presented) The illumination arrangement according to claim 29, wherein the illumination optics are arranged as to be swivelable with respect to the image scale as zoom system.

Claim 43 (Previously Presented) The illumination arrangement according to claim 29, wherein a hand-actuated control is provided for adjusting the illumination optics.

Claim 44 (Currently Amended) The illumination arrangement according to claim ~~20~~ 29, wherein a fluorescence excitation is carried out via the illumination channel.

Claim 45. (Currently Amended) An illumination arrangement for a stereo microscope, in particular, a Greenough type comprising:

a at least one illumination channel arranged in a plane essentially orthogonal to a

plane of the two observation channels, wherein the illumination is effected at an angle to the optical axis of the microscope by means of at least one light conductor in which the illumination channel is substantially outside the viewing angle so that substantially no direct reflection of illumination light falls into the observation channels and a florescence excitation is effected through the light conductor.

Claim 46. (Currently Amended) An illumination arrangement for a stereo microscope, in particular, a Greenough type comprising:

a at least one illumination channel arranged in a plane essentially orthogonal to a plane of the two observation channels, wherein the illumination is effected at an angle to the optical axis of the microscope by at least one light conductor in which the illumination channel is substantially outside the viewing angle so that substantially no direct reflection of illumination light falls into the observation channels.